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## **Statewide Science Assessment Results Released**

**MONTPELIER** – The Agency of Education today released the spring 2013 science test results for Vermont students in grades four, eight, and eleven, indicating improvement in some grades and areas that still require focus.

The science test, which is part of the New England Common Assessment Program (NECAP), is designed to measure students' scientific literacy, a body of skills and knowledge that combines factual information from biological, physical and earth/space science with the higher order thinking skills that are part of scientific inquiry.

"Kids need to see how these areas of science work together," said Armando Vilaseca, Secretary of Education. "Our hope is that students will see the value of science as a context for applying mathematics and effectively using communication skills."

"We want to find out if our students can think like scientists," said Pat Fitzsimmons, an Education Programs Manager at the Agency who helped develop the NECAP science test. "We want to assess their abilities as critical thinkers, to see if they can stand back and see if the data make sense."

The results show that 47 percent of Vermont fourth graders scored as proficient or higher in science, down six percentage points from last year's level. While in grade eight, 32 percent were proficient or higher, up two percentage points from 2012. In grade eleven, 31 percent were proficient or higher, down two percentage points from 2012. This is the sixth year of administration of the NECAP science assessment, which combines scores from multiple choice and short answer questions with results from an inquiry task that requires students to analyze and interpret findings from an actual science experiment.

"Governor Shumlin and I have advocated for raising math and science graduation requirements for some time. In addition, we have worked closely with the State Board of Education and practitioners from the field to update the Education Quality Standards (EQS) to reflect these higher expectations," said Armando Vilaseca, Secretary of Education. "These changes create the infrastructure to enable students to graduate from high school with the content knowledge and skills to be successful as they continue their education and enter the workforce."

Rhode Island and New Hampshire, Vermont's partners in the NECAP consortium, also saw a large score drop this year for students in grade four. State Director of Educational Assessment, Michael Hock, pointed to the test's inquiry section as the major source of the lower scores. "The inquiry section requires students to apply the scientific processes to a real life, hands-on investigation," Hock said. "Students also need to use the language of science to report their findings and conclusions. The Agency will continue to encourage an inquiry approach to teaching

science in the classroom, with special emphasis on how science instruction needs to interact with English Language Arts.”

As seen in previous years, statewide and nationally, an achievement gap persists between students from low-income families and their peers. In Vermont, the science achievement gap continues to be approximately 25 percent.

School reports are available online:

[http://education.vermont.gov/new/html/pgm\\_assessment/data.html#necap](http://education.vermont.gov/new/html/pgm_assessment/data.html#necap).

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